

AMENDMENTS TO THE CLAIMS

1-6. (Canceled)

7. (Currently Amended) ~~The method set forth in claim 6;~~

A method for checking the existence of an optical disk in a disk drive using a focus error signal, comprising the steps of:

(a) receiving a focus error signal;

(b) sampling the received focus error signal at constant intervals;

(c) summing the values of the sampled focus error signal, which are less than a first predetermined reference level;

(d) determining whether the summed value is greater than a predetermined judging level;

(e) judging the existence of the optical disk in the disk drive based on the result in the determining step (d);

wherein the step (b) is started when the value of the focus error signal exceeds the first predetermined reference level, while moving an optical pickup;
and

wherein the predetermined reference level includes first and second predetermined reference levels, where the first predetermined reference level is

for starting said sampling step (b) and the second predetermined reference level is for sampling the focus error signal.

8-11. (Canceled)

12. (Previously Presented) The method set forth in claim 7, wherein the first predetermined reference level is higher than the second predetermined reference level.

13-18. (Canceled)

19. (Currently Amended) ~~The method set forth in claim 5,~~
A method for checking the existence of an optical disk in a disk drive using a focus error signal, comprising the steps of:

- (a) receiving a focus error signal;
- (b) sampling the received focus error signal at constant intervals;
- (c) summing the values of the sampled focus error signal, which are less than a first predetermined reference level;
- (d) determining whether the summed value is greater than a predetermined judging level;

for starting said sampling step (b) and the second predetermined reference level is for sampling the focus error signal.

8-11. (Canceled)

12. (Previously Presented) The method set forth in claim 7, wherein the first predetermined reference level is higher than the second predetermined reference level.

13-18. (Canceled)

19. (Currently Amended) ~~The method set forth in claim 5,~~
A method for checking the existence of an optical disk in a disk drive using
a focus error signal, comprising the steps of:

(a) receiving a focus error signal;

(b) sampling the received focus error signal at constant intervals;

(c) summing the values of the sampled focus error signal, which are less
than a first predetermined reference level;

(d) determining whether the summed value is greater than a predetermined
judging level;

(e) judging the existence of the optical disk in the disk drive based on the result in the determining step (d); and

wherein a focus error value is added to the summed value if the error value is greater than the predetermined reference level.

20-23. (Canceled)

24. (Currently Amended) ~~The method set forth in claim 20,~~

An apparatus for checking the existence of an optical disk in a disc drive using a focus error signal, comprising:

an optical pickup for outputting the focus error signal;

an analog-to-digital converter for sampling the focus error signal at constant intervals;

a microcomputer for determining the existence of the optical disk in the disk drive by summing the values of the sampled focus error signal, which are less than a first predetermined reference level, and determining whether the summed value is greater than a predetermined judging level; and

wherein a focus error value is added to the summed value if the error value is greater than the predetermined reference level.